character and tone to its proceedings. The amateurs must constitute the rank and file, accept that position, and keep to it, until by some special qualifications they may be promoted to a higher grade.

In England such is the case. Taking the case of the Quekett Microscopical Society, such men as Professor Huxley, Dr. Lionel Beale and Dr. Cobbold, the eminent helminthologist, have presided over the proceedings, and the result has been that over five hundred members have enlisted under such leadership. Compare this with the American Microscopical Society of New York established in the same year. Who ever heard of a paper read before this body, or a single piece of scientific work performed by one of its members? No fossil could be more inactive than this society; it exists on paper only, and for the benefit of a few officials.

A younger Microscopical Society, established in New York city about three years since, has been organized on an equally faulty basis, and now numbers but thirty members. The co-operation of the right men has never been asked, and probably would not be accepted, and in consequence, a future of inactivity and embarassment may be anticipated.

To make American Scientific Societies as effective as those in England, they must be organized on a sufficiently popular basis, to interest the sympathy and support of the public; and presided over by men of known scientific ability, whose presence will encourage the student, and give a character to the proceedings.

In regard to the aid given by scientific journals in promoting useful co-operation between the scientist and the student, we may state that one of the objects of "SCIENCE" is to promote such a consummation, and that aim will be constantly kept in view. As a step in the right direction we have here indicated some of the means, by which the icy barrier which now separates those who should be cordially united in a great work, may be gently thawed by the inspiring influences of united action and generous co-operation.

A SCHOOL of agriculture has been formed at Canterbury, New Zealand, situated at Lincoln, twelve miles from the city of Canterbury. This institution is under the direction of Mr. W. E. Ivey, comprises lecture theatre, library, museum, chemical laboratory. A farm of 500 acres is attached to the institution, a portion of which will be devoted to experimental purposes for testing the various methods of cultivation.

M. DAUBREE, director of the French School of Mines, has published an essay on Descartes, in which he summarises the services rendered by that philosopher to science. He reminds his readers that Descartes advocated the theory of an igneous origin for the earth, and he enters into a lengthened discussion of the objections which may be raised against the theory of actual causes.

THE Earl of Spencer, in a recent speech in the House of Lords, *admitted* the application of science to agriculture. He said: "Great attention had of late years been very properly called to the great aid which science gave to the various classes of manufactures and producers; and that principle applied with quite as great force to agriculture as to any other art. If science could enable our agriculturists to produce more from the land than they had hitherto done, it would add another to the many useful things it had been the means of accomplishing." These words might, with some propriety, have been spoken twenty years ago, and if they represent the present relation of science to British agriculture, much of the unprofitable results of farming in that country may be thus explained.

LORD Spencer said, that it had been at last decided to open a class for agriculture next August, at the Department of Science and Art. We commend Lord Spencer to a perusal of the reports of the department of Agriculture at Washington, especially that for 1878, in which the value of science to the agriculturist is very evident.

THE value of scientific journals has been attested to, by the humble class of astronomers who exhibit their telescopes at corners of streets in Paris, showing the moon, planets and other celestial objects which may be seen with telescopes of moderate quality. They state that since the publication of the *Astronomie Populaire* the number of their customers has nearly doubled.

IT appears from a statement by M. Flammarion that the scientific journalists of Paris meet monthly, when papers are read, and other business transacted.

M. J. M. GAUGAIN, the eminent French electrician, recently died at the age of seventy years.

At a recent trial in England, a gas company was sued for damages, the plaintiff having been rendered insensible by an escape of the company's gas, due to a breakage in their mains. The plaintiff alleged that he suffered for a considerable length of time after the accident, and was unfit for business. The jury accepted the view of Dr. Tidy and Dr. Hastings, who gave scientific evidence on the subject, they being of the opinion that the effect of inhaling coal gas was very transitory; and that if sufficient was not inhaled to cause death, it would shortly pass from the system, and its ill effects cease.

CORRESPONDENCE.

To the Editor of Science:

DEAR SIR:—In the Physical Laboratory we noticed last Winter a beautiful experiment with vapors. An alcohol lamp, burning, was put under the receiver of the air pump. A few strokes put out the flame. The air returning, a single stroke of the piston caused the receiver to fill with a dense and transient cloud, soon disappearing with a change of pressure in the receiver. This experiment has interesting relations to rain fall, and other meteorological phenomena.

G. M. MANSFIELD.

Laboratory of Asbury University, Indiana, July 7, 1880.